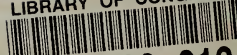


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THE WONDER OF THE WORLD.



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—BY—

F. COPE WHITEHOUSE, M.A.

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1885.

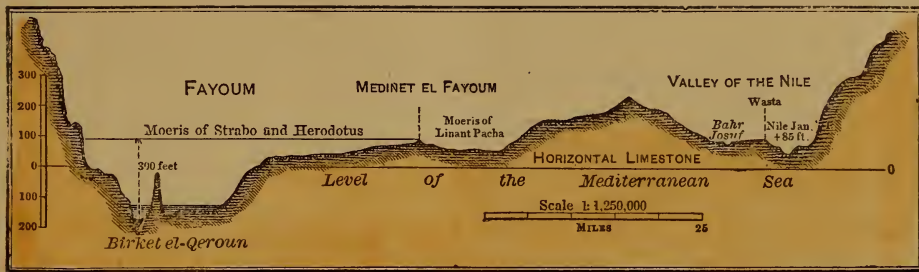
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MOERIS: THE WONDER OF THE WORLD.

BY F. COPE WHITEHOUSE, M.A.

Seventy miles to the Southwest of Memphis, the government of Egypt, at an early period in its history, animated by the noblest motives, seeking to utilize to the utmost the annual flood of the Nile, converted a vast extent of low desert into an impounding reservoir which was regarded during the entire thousand years of Greco-Roman history as the most stupendous of the engineering works of the world. It was not only of marvellous utility, but also planned on a scale of unique and incredible grandeur, and executed by the labors of successive generations. As a fitting monument of this immense undertaking, two pyramids were constructed on an island near the middle of the lake. Their summits rose three hundred feet above its surface. Their base, however, lay two hundred feet below the level of the Mediterranean and in nearly fifty fathoms of water. An eighth of a mile high, they outranked all the other pyramids of Egypt and were as far above the bed of the lake as the present apex of Cheops is above the Valley of the Nile. Such was the unanimous statement of antiquity from Herodotus to Hassam Ibn-Isaac, from B. C. 434 to A. D. 700. With equal unanimity these accounts were denied and even derided by modern historians from Voltaire to Lepsius, and as late as 1881. No such lake, it was declared, ever had or could have existed; no such island with its superstructure was ever seen by Herodotus or Diodorus. Moeris and its pyramids were excluded from consideration. The excavation or erosion ceased to play any role in the magnificent drama of Egyptian development. Its alleged pyramids were never classed with Medoum, Dahshour

or Gizeh, and contributed nothing to the elucidation of the problem of the construction or purpose of the structures in the Valley of the Nile.

In June, 1881, in New York, I had said that "in prosecuting local researches on the frontiers of human thought many mysteries of Egypt proved to be only natural facts, distorted and exaggerated by European prejudices and habits of mind. Difficulties are created by a failure to appreciate the wise moderation which characterizes eastern attempts to deal with the forces of nature. The utilitarian motive being obscured, some fantastic notion is invented and substituted. Its improbability then places it beyond attack." In September, 1881,* at York, during the meeting of the British Association, an opportunity presented itself of calling attention to certain errors in regard to Lake Mœris. An apparent connection was also shown between some of the most celebrated public works in middle Egypt, which had previously been regarded as wholly independent. The *idée mère* of these suggestions was the accuracy of the ancient records when correctly translated and harmonized. They were the offspring of a refusal to admit any charge of folly or superstition brought against the ancient government of Egypt which was not clearly proved. It is impossible to conceive a frontier of human thought more sharply marked than the plateau of Gizeh. If the pyramids are only sepulchral mounds, the tumuli of nameless kings who sought, but vainly, to perpetuate their personality for all time by the preservation of their bodies in the most stupendous of sepulchers, the failure is accentuated by the contrast between the terrace covered to the East with hewn basalt, polished granite, carved limestone and glittering alabaster, and the coarse rock to the West which rises and sinks and rises again to the near horizon in a jagged wall whose ledges mark the successive strata of cretaceous deposit. Seamed and scored by deep waterless ravines, the high plateau of the Libyan Desert with its majesty of absolute desolation commences at the very foot of what are alleged to be the most colossal monuments of human egotism.

Lake Mœris also marked a frontier of human thought, if it was, as Diodorus said, the most gigantic as well as the most unselfish

* See Proceedings of British Association, Montreal, 1884; and Proceedings of Royal Geographical Society, London, October, 1884, (with authorities cited).

creation of royal will, where successive monarchs had guided the energies and expended the resources of their subjects to the greatest possible advantage. "Who is he," said the Sicilian geographer, himself an eye witness, "that considers the greatness of this work that may not justly ask the question—How many thousands of men were employed, and how many years were spent in finishing it? Considering the benefit and advantage brought (by this great work) to the government, none ever could sufficiently extol it, according to what the truth of the thing deserved. For being that the Nile never kept to a certain and constant height in its inundation and the fruitfulness of the country ever depended upon its just proportions, the king dug this lake to receive such water as was superfluous, that it might neither immoderately overflow the land, and so cause fens and standing ponds, nor by flowing too little, prejudice the fruits of the earth for want of water. To this end, he cut a canal along from the river into the lake, fourscore furlongs in length and three hundred feet broad; into this he let the water of the river run, and at other times diverted it and turned it over the fields of the husbandmen, at seasonable times, by means of sluices, which he sometimes opened and at other times shut up, not without great labor and cost; for these sluices could not be opened or shut at a less charge than fifty talents (\$53,000).* This lake continues to the benefit of the Egyptians for these purposes to our very days, and is called the Lake of Myris, or Meris to this day." "The annual royalty on the fish taken in the weir, at the entrance of the lake, amounts to two hundred and fifty talents (\$254,400)." For there were in it two and twenty sort of fish and so vast a number were taken that those who were employed continually to salt them up (though they were multitudes of people) could hardly perform it.

In order to show that this explicit account had in 1881 been rejected in its entirety it is only necessary to turn to any work on Egypt published in the last quarter of a century. From the Egypt of Bunsen, Brugsch, Ebers, or Rawlinson, to that of the *Encyclopædia Britannica* credit is given to M. Linant de Bellefonds Pasha for demonstrating the errors of the ancient

* "The canal of Khatatbeh, though only 26 miles long, requires annually the labor of 20,000 men for fifty days to clean [open] it. The bare cost of feeding this army amounts to £25,000 (\$125,000)." —W. ANDERSON, M. I. C. E., April, 1884.

Universal History. In the volume recently published (dated 1885), he says that "in spite of all the efforts of research, we have, as one of the most distinguished Egyptologists has expressly admitted, not advanced far beyond Herodotus in positive knowledge of ancient Egyptian history. Herodotus had seen and admired the Lake Mœris; the name of *the King Mœris*, to whom he attributed it rests upon a *misconception*. But the work magnificent in its very ruins still exists. It is *not* a natural lake but an *excavated* reservoir with *enormous dykes* about 50 feet in width, and it was designed, when the Nile rose, to receive the waters which might *perhaps* have worked mischief in the Delta, and reserve them for times when the inundation of the country did not attain the height requisite for its fertility. In the water was to be seen *the colossus* of stone which perpetuated the *memory* [not the *name*, see above] of the constructor Amemhat III." In the Encyclopædia Britannica, we are told that: "As we approach the Pyramids of Gizeh these structures do not give us that idea of size that we had expected from our first distant view, and until we stand at their feet we do not appreciate their vastness. But as we endeavor to scan the height of the great pyramid, when about to begin its ascent, we *fully realize a result that human labor has not achieved elsewhere*. The very *dimensions* (a height of *about half-a-thousand* feet, four sides each measuring the seventh of a mile) are in *themselves* gigantic; but when we know that this huge space is almost solid, containing a few chambers so small as not to be worthy of consideration in calculating its contents, we discover that *no* monuments of man's *raising* elsewhere afford *any scale* by which to estimate its greatness." Thus the sober judgment of the nineteenth century affirms that the pile of limestone at Gizeh commonly known as the Pyramid of Cheops is unapproachable in its greatness. This seems a strange decision with a similar pile of limestone, nearly as large and always loftier, so close that the two are always coupled as *haramen*—the twin pyramids of Shufu and Shafra, of the brothers Suphis. Von Ranke who also reduced Mœris to an excavated reservoir similarly endorses the praise of these "noble sepulchral monuments of epochs inconceivably remote," where "the amount of force employed is as remarkable as the architectural skill displayed throughout." Thus, therefore, the engineer of modern times is

bid to see in the Pyramid of Cheops a structure erected in the infancy of the world, and before the dawn of history, which rapidly passed beyond the powers of the human race, so degenerated and enfeebled that for six thousand years no monument of Greece or Rome, of mediæval or modern Europe can even furnish a standard of comparison. On the other hand Lake Mœris becomes a shallow pool or a broad canal.

This was not the opinion of Herodotus: "It took *ten* years to make *the causeway*, a work *not much inferior* in my judgment to the pyramid itself. This causeway is five furlongs in length, ten fathoms wide, and in height at the highest part eight fathoms. It is built of polished stone and is covered with carvings of animals. The pyramid itself was *twenty* years in building. There is an inscription in Egyptian characters on the pyramid which records the quantity of radishes, onions and garlic consumed by the laborers who constructed it, and I perfectly remember that the interpreter who read the writing to me said that the money expended in this way was 1600 talents of silver (ca. \$1,700,000). *If* this then be a true record what a vast additional sum must have been spent on the other works including the underground apartments." So far therefore from being astounded by the pyramids the Greek immediately points out the superior artistic and practical value of the approach or *dromos* which led to the hill, and the basalt, limestone, syenite and alabaster employed in the decoration of the terrace. He specifically ranks the engineering works of the world in a later chapter. "It seemed good to the twelve joint sovereigns to leave a common monument. In pursuance of this resolution they made the Labyrinth, which lies a little above Lake Mœris. I visited this place and found it to surpass description; for if all the walls and other great works of the Greeks could be put together in one, they would not equal either for labor or expense this Labyrinth, and yet the temple of Ephesus is a building worthy of note and so is the temple of Samos. The pyramids also are greater than they are commonly reported, and are severally *equal to a number* of the greatest works of the Greeks, but the Labyrinth surpasses the Pyramids." The Labyrinth had shared the fate of Lake Mœris at the hands of Dr. Lepsius. The enthusiastic admiration of the Ionian Herodotus, and the weighty sentences of the polished Strabo had not sufficed to pro-

tect it. The leader of the German Expedition, eager to surpass the work of his predecessor, M. Jomard, suffered himself to be betrayed into depicting with absurd exaggeration in the *Denkmäler aus Ägypten* miserable walls of *mud brick* as immense ruins. Simultaneously exposed by M. Perrot and myself,* the recent work of Ebers unintentionally gives them, by the insertion of erroneous standards of measurement, the guaranty of a most accomplished and painstaking writer. Dr. Pleyte, citing with approval from an article of mine in the *Proceedings of the Society of Biblical Archæology* (June, 1883) the expression that the Egyptian Stonehenge could never perish, endorses the description of Herodotus. Dr. Schweinfurth has also expressed his belief in its existence.† “It is from hearsay only,” said Herodotus with an honesty rarely imitated by the modern sightseer and maker of guide-books, “that I can speak of the lower chambers. The upper chambers, also fifteen hundred in number, however, I saw myself with my own eyes and found them to excel all other human productions.” For the passages through the halls and the varied windings of the corridors across the courts excited in him infinite admiration because the roof was throughout of stone like the walls, and these were *carved all over* with figures and every court was surrounded with a colonnade, which was built of white stones, exquisitely fitted together. But, continued the Greek historian: “Wonderful as is the Labyrinth, the work called the Lake of Mœris which is close by the Labyrinth is yet more astonishing. The measure of its circumference is sixty schœnes [each “cable-length” being a day’s “tow”], or 3,600 furlongs, which is equal to the entire length of Egypt along the sea-coast. The lake stretches in its longest direction from north to south and in its deepest parts is of the depth of fifty fathoms.” Thus in the opinion of the Greek, the Pyramid of Cheops was not more than twice as great as the Causeway. It was little greater than that of Chephren. It equalled a number of the great works of the Greeks, and even the temples of Ephesus and Samos. But a pile of rough stones, however large, could not be named in the same category with the Labyrinth, and even the Labyrinth, with its skilful arrangement of halls and

*The new catalogue of the Museum of Bulaq marks the so-called Labyrinth of Lepsius as the Greco-Roman Necropolis of Arsinoë, (p. 262).

† “Sehnsuchtig erwarte ich Sie in Aegypten zur aufsuchung des Labyrinths.”—Cairo, May 27, 1884.

passages, lacked (at that period) the crowning attribute of utility. The exhibition of mere force which stupefies the modern writer is justly relegated to a low rank in the presence of the beautiful Capitol of feudal Egypt. But the highest place is reserved for the vast inland sea, Mer-Uer, the sacred pool of Horus, Pithom or Pi-Tum of Mosaic record, where the fair offspring of the Nile, the "daughter of Pharaoh," the Coptic Arsinœe, and the Rhodope of the Grecian fable had been set apart by Pharaoh-Osiris, Father and King, for the use and pleasure of man. The lake, treasure city (Ex. I. 11), and fortress, the *fossa grandis* or huge circumvallation of Memphis, was also named by Pliny next to the Labyrinth. That "most prodigious expenditure of human labor," (*portentosissimum humani impendii opus*) was certainly the grandest architectural feature of the Fayoum, but, seemingly, also part of the same stupendous system of irrigation and defence.

Thus classified, the Sphinx at Gizeh and the Pyramids in the Lake of Charon form an orderly sequence. These monuments of history are splendid illustrations of man's triumph over nature. The din of arms and the shock of religions is echoed in Homeric Hexameters, and in the tales the Phœnicians told to Virgil of the conflict at Turra, and the loss of Caft-Ur (Manetho). The labyrinth on the Bahr Hunt (Jousuf) ceases to be a riddle and becomes a key. It closed its lower chambers to Herodotus when its vergers put him off with a story about kings and crocodiles, which might nevertheless have led him through the aqueduct of Samos to the leather water-mains and pipe-lines of the Corys. Its Roman governor opened its inmost recesses to Strabo. He listened as the slaves swung its stone doors on their bronze hinges (Papyrus), and the clang resounded through the dark and devious network. The descendant of the Pontic kings looked upwards from its low roof. He saw above him PA-EL, the Sun-God, Apollo, and believed the building a Heliopolis-Baalbec. He thought it a temple to Ra, while Josephus cited Manetho to witness against Apion that here was the first Jerusalem where Eastern Monotheists, then as now, worshipped an ineffable and personal Jehovah. Strabo should have looked beneath his feet for the clue which Ariadne gave to Theseus and Pliny offers to the student. Had he been Hesiod, an inspired fancy might have found it westward where Danaë

welcomed the God of Heaven in golden dust, and where the wings of Icarus failed him above the Icarian deep. "I saw everything in Egypt," said Ælius Aristides, "in my four visits—Lake, Labyrinth and Pyramids." The Lake, strangely enough, did not survive its great compeer in history, and they both disappeared when Clio turned the page of the second century.

The accompanying maps show the extent and position of the ancient lake. The Bahr Jousuf is a canal commencing near Assiout, which follows the western shore of the valley, while the main stream, the Bahr el-Nil, runs under the eastern cliffs. At high Nile, however, both channels are effaced, and the floods cover the entire width of cultivable land. Immense labor was expended upon the redemption of the Fayoum, and an ounce of dynamite placed in the dyke of El-Lahun by the retreating army of Arabi Pasha would have demonstrated beyond all possibility of cavil that wherever the figures are less than +100, Mœris, the Neptune of the Nile, once reigned. By such a disaster all its fertile fields would be again submerged. Although Strabo saw the northern basin filled with water, and the waves breaking against the dyke which *excluded* it from the plateau marked as the Mœris of M. Linant, later generations

confined it to the southern basin or Wadi Reian. This is the only part which it would be possible or expedient to restore. So easily could this be accomplished, and so imperative is the necessity, that before the first of March, 1888, it is far from improbable that a lake of several hundred square miles in extent will relieve the pressure of high Nile, even if the works required to utilize the water for irrigation have not been completed. It is almost superfluous to explain how the reservoir of the Roman age ceased to exist. The alluvial deposit of the Nile choked the canals and aqueducts. The Arabian domination of the



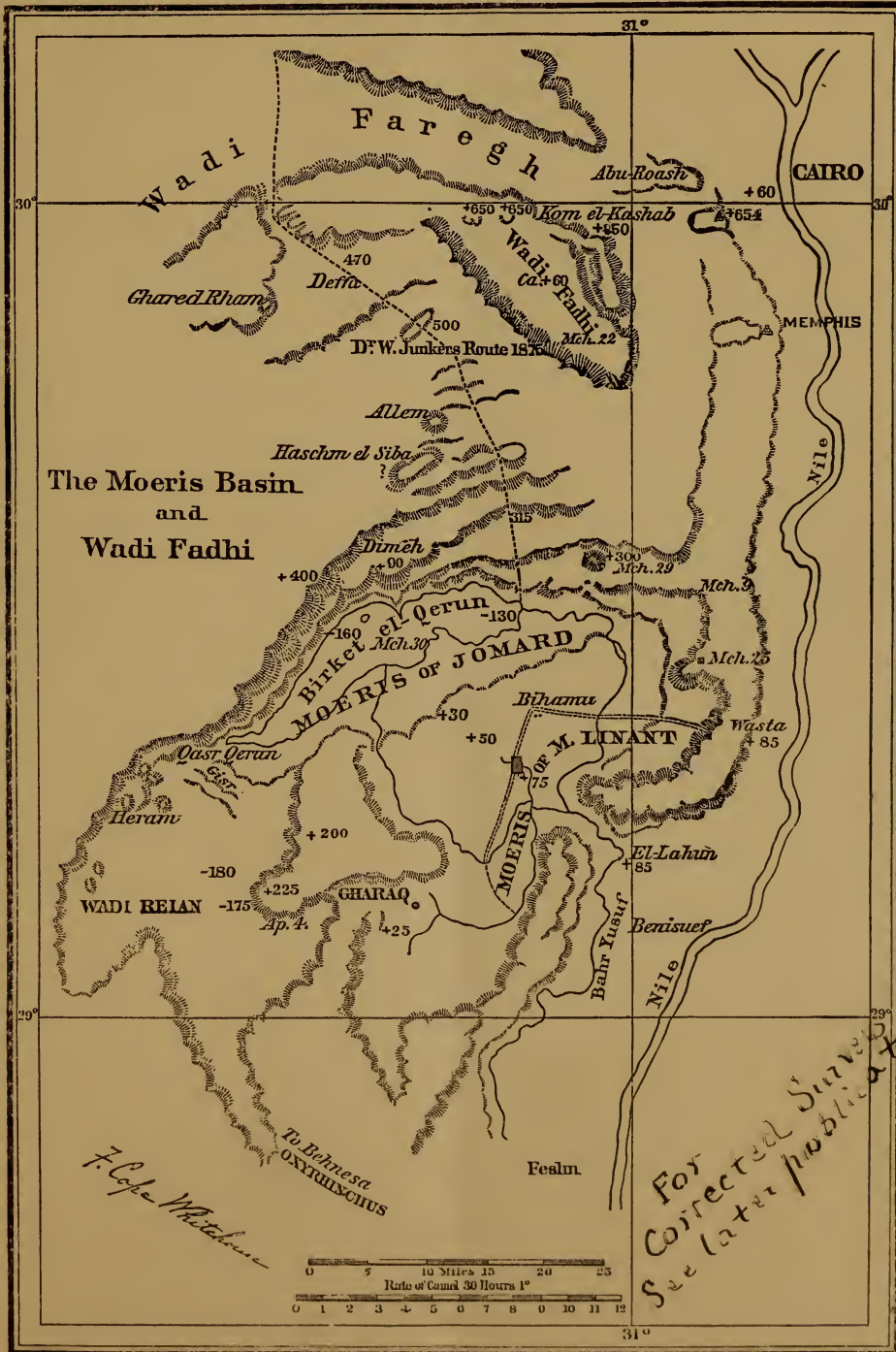
From the CENTURY.

October, 1884.

LAKE MÆRIS RESTORED.

twelfth century was peculiarly disastrous. Famine and Iconoclasm are forcibly depicted in the lucid pages of Abdollatif. They may have been related in fact as well as time. The canal of supply was neglected and plundered in its long course. The inhabitants of the Fayoum shut out all the water not required for their own use, and there was no central government strong enough to compel a *corvée* which would work for the common weal. Our own century has seen Egypt at its lowest point. Europe has inflicted blow after blow upon the unhappy country. Menzaleh was a fresh-water lake in the geography of Edrisi (1150) and Tanis Parva (not Zoan, *i. e.*, Tanis-Memphis) was an agreeable miniature capital of a flourishing province. Mareotis became a lagoon in 1801.

The ruined temple of Ammon, the Qasr Qeroun, in the desert to the south of the Birket el-Qeroun, was occupied on the night of the twenty-ninth of January, 1799, by a squadron of French cavalry and a distinguished scientific corps. On March 3d, 1882, it was also occupied by me, with a horse, a camel, and seven Arabs, picked up at hazard two days before. The contrast presented by the military arrays was not greater than that of the intellectual attainments of the respective leaders. Yet, if M. Jomard had gone (as I did), to the Haram, marked upon his map as a *Butte Pyramidale*, and so conspicuous from the top of the temple that he ought to have known that the adjacent desert must be a deep erosion, or had he, with greater faith in antiquity, in his library in Paris, put the Ptolemaic centre of Mœris-Fayoum where that geographer had fixed it by latitude and longitude, in the very spot where he had bivouacked, (as I had done in London, so as to make sure of what I ought to seek before the desolation of the desert should confront and deter me), it is more than probable that the regeneration of Egypt would have been anticipated by nearly a century. Instead, therefore, of being paralysed by the Pyramid of Cheops as wholly beyond the range of human intellect, with a superstition which would have amused a Roman Augur and shocked the astrologers of the Chaldean war-office, we should rather follow the guidance of the sensible Greek and the practical Roman. The Canals, the Gate-house and the Lake of Mœris, are achievements which the vast resources and vast needs of our own West, the floods of the Mississippi and the deserts of New Mexico, require us to equal and may enable us to surpass.



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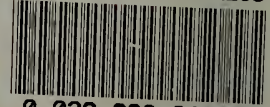
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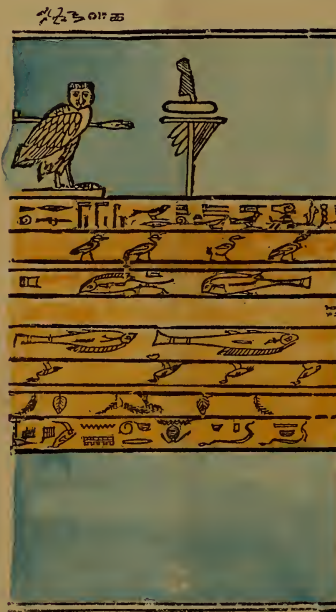
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THE LAKE OF PI-TUM.

PITHOM